UNIVERSITY OF CALIFORNIA
COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
BERKELEY, CALIFORNIA

CIRCULAR 348
November, 1939

CREEP-FEEDING OF SPRING LAMBS

ROBERT F. MILLER[1]

In this state, during the past year, there has been considerable interest in creep-feeding of spring lambs. Many requests have been received for the details of this somewhat new practice. This circular is intended to acquaint those interested with the essentials of creep-feeding, its advantages, its limitations, and the plans for necessary equipment.

A lamb corral for creep-feeding.

At the outset the writer wishes to emphasize that creep-feeding, though highly profitable in some sections under certain feed conditions, may not be necessary or even practical under other conditions. Every grower should carefully study his own feed limitations, become familiar with creep-feeding, recognize the cost of necessary equipment, and decide for himself the desirability of this practice.

Because of the many considerations involved in the feeding of young lambs, it is somewhat difficult to explain why some men fail and others meet with striking success. One must plan the work well in advance—such details as building panels and troughs, providing a tent for grain storage, setting up the equipment at the proper time, and purchasing the grain supply. Also important is the personal element—that is, close supervision by the owner and whole-hearted coöperation of the foreman and the herder in performing the daily routine.

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[1] Professor of Animal Husbandry and Animal Husbandman in the Experiment Station.

SPRING-LAMB PRODUCTION IN CALIFORNIA

California produces about 1,250,000 spring lambs annually. About one half of these are shipped to eastern markets, while the remainder are sold on the Pacific Coast. Because these lambs are dropped in November, December, and January, at the time when natural feed is short, the growers must usually supply supplemental feeds for the ewes. The principal feeds used are alfalfa hay, volunteer grain hay, cottonseed cake, yellow corn, barley, oats, milo, split beans, and dried beet pulp. To produce choice lambs of good weight, some have found it desirable to supplement the feed of the lambs also. This practice is herein discussed.

NATURE OF CREEP-FEEDING

Definition.—Creep-feeding consists in providing supplemental feed for the young lambs apart from their mothers. This is done by means of lamb corrals consisting of specially constructed panels with upright slats 8¼ to 10 inches apart (frontispiece and fig. 1), which will admit the lambs but withhold the ewes. This lamb corral is usually set up at the bedground or perhaps where the ewes are given supplemental feed.

Object.—The object of creep-feeding is to prevent a possible setback in the lambs because of scarcity of feed; to force the lambs to an early finish; to produce a high percentage of fat marketable lambs; to produce lambs of heavy weight; and to finish the lambs before the feed dries up. When the feed dries, the ewes cease milking freely; and the grass seeds adhere to the wool of the lambs, irritating the skin around the mouth, brisket, belly, and legs. Where lambs are creep-fed, furthermore, the ewes remain in better condition and produce a heavier wool clip because the lambs are more satisfied.

Grain-fed lambs shrink less in shipping to eastern markets, produce a firmer carcass, and in general compare favorably with the native mid-western lambs, which are also usually fed grain by means of a creep.

Adaptability.—On the better class of ranges, where bur clover prevails, creep-feeding may not be justified. It is, however, particularly adapted to the second-rate ranges where the vegetation consists mainly of filaree, foxtail or wild barley grass, wild oats, brome grass, and other coarse vegetation. It is also advantageous on ranges that have been overstocked and on which the native vegetation is limited. According to one grower, 65 per cent of the ranges in California are of these two types.

Creep-feeding is particularly desirable in seasons of low rainfall when feed is normally short. Fortunately, it works best during dry years; a heavy rain may cause the corrals to become so muddy that straw bedding must be provided. In addition, during heavy rains it is hard to keep the troughs clean and dry or to haul feed out on the range.

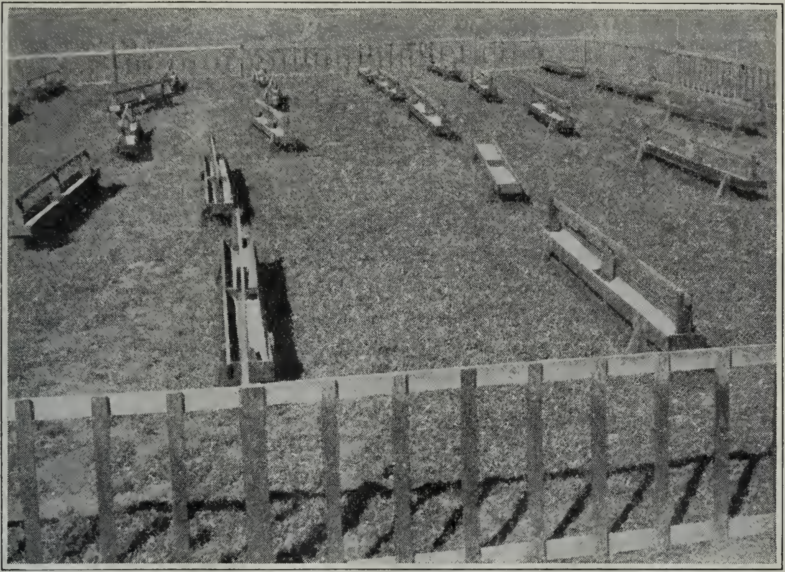

Fig. 1.—A lamb corral showing panel construction of creeps with 10-inch openings (for large lambs) and demountable troughs containing grain put out ready for the lambs. A canvas tent, 8 × 10 feet, is set up adjacent to the corral for grain storage.

The question is often raised whether it pays to creep-feed lambs when natural feed is plentiful. Although they may not need supplemental feed during wet years, no one can predict what the rainfall will be. For that reason it is recommended to begin creep-feeding when the lambs are 2 weeks old, regardless of the weather prospects; for good results, one must teach the lambs to eat while young. Regardless of rain, furthermore, native feed is nearly always short during December and January because of cold weather; it is helpful to feed the lambs during this period. One can easily discontinue the practice should the season prove so favorable that the supplement is deemed unnecessary. Experienced growers regard creep-feeding as an insurance policy; it eliminates the gamble on the weather and the resultant worry. Again, fed lambs finish at an early age, attain heavy weight, and when shipped east shrink considerably less than lambs not creep-fed. They are acquainted with troughs and feed and will begin eating even at the first unloading station, whereas other lambs not accustomed to supplemental feeds will not eat well until the second or third feeding station en route east.

Creep-feeding also makes it possible to stock a range to full grazing capacity because it provides supplemental grain. With the prevailingly high rate of lease in California, one must carry the optimum number of sheep per acre in order to realize a profit.

MANAGEMENT DETAILS

Successful creep-feeding of lambs depends upon many simple details in management. Growers who have observed these details have had excellent results, whereas others less careful have failed. For this reason sheepmen disagree as to the practicability of this somewhat new practice.

Freedom of Grazing.—Creep-feeding must fit into the method of grazing; it works best where the sheep are in the charge of a herder and where the ewes and lambs graze leisurely up to a well-arranged creep late in the evening. They should be held there for about an hour or long enough for the lambs to consume the grain in the troughs. In some cases the ewes are made to bed down near the creep, although the more experienced growers prefer to bed them somewhere else on the range in order to keep the area around the creep clean and sanitary. The lamb corral should be movable and should be changed from one range to another as required. To graze range areas in rotation is a desirable practice.

Creep-feeding does not work well where the ewes and lambs are grazing at will under fence, unless the ewes are fed supplemental feeds and the band comes regularly up to a central place. In this case a lamb creep may, with good results, be set up adjacent to this central feeding ground.

It would be a mistake, however, to round up the ewes and lambs daily, perhaps with the aid of a dog, in order to feed the lambs. "Freedom of grazing is the essence of successful sheep husbandry."

Sufficient Panel and Trough Room.—To accommodate a band of 700 lambs a panel corral 60 feet wide and 120 feet long is required. The creep corral should have slatted panels on all four sides, as is shown in figure 1. The arrangement makes it easy for the lambs to dodge in and out at will; and should they become frightened for some reason, they can readily find an exit and avoid possible injury through jamming or running into a fence. The writer has observed creeps with only one 12-foot slatted panel on each side and with the rest of the corral constructed of ordinary panels that do not allow either the ewe or the lamb to enter. This is not an ideal arrangement.

The slatted panels are usually 12 feet long and constructed of light 1 × 4 inch lumber surfaced on four sides. They are held in place by movable 5-foot steel posts. To determine the best width between the slats is a problem: the space should be sufficient to keep the smaller ewes out and yet large enough to admit the lambs. When lambs are small an 8¼-inch opening (fig. 2)[2] is sufficient, but later the opening should be increased to 10 inches. The most practical arrangement is to construct panels with permanent 10-inch openings (fig. 3) and to nail a 1 × 4 inch board across the panel about 18 inches from the bottom; this prevents the ewes from entering. This board may be fastened with bolts, making it adjustable. Ewes must never be allowed to enter; if they do not get a taste of the grain, they will soon stop trying to go in.

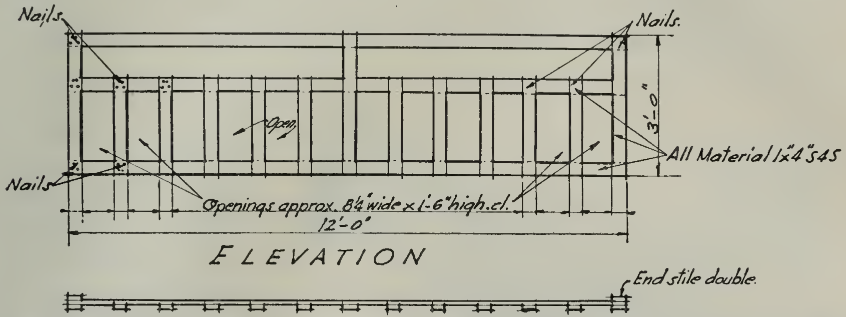

Fig. 2.—Creep panel (Brownell type) with approximately 8¼-inch openings, nonadjustable. The lumber is surfaced on four sides. This panel is adapted primarily to small-type lambs.

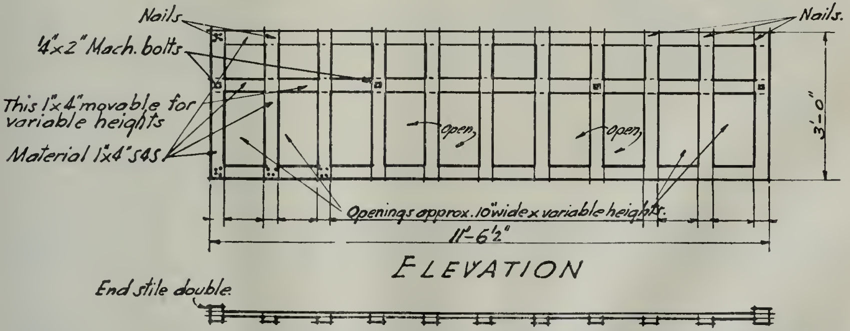

Fig. 3.—Creep panel (Paulo type) with 10-inch openings. The middle horizontal board is adjustable by use of only an occasional nail or preferably by the use of bolts. The upright slats may be 1 × 3 instead of 1 × 4 inch, using no. 1 lumber. This arrangement allows one additional opening and decreases the weight of the panel.

The corral should be equipped with 30 troughs, each 12 feet long. A lamb requires about 1 foot of feeding space; or 24 lambs may eat at one 12-foot trough, using both sides. The troughs should be provided with a guard rail suspended 10 inches above them (figs. 4 and 5). This rail prevents the lambs from jumping into the trough and soiling the feed. The ideal trough is a "knock-down" type (fig. 4), made with removable rail and legs to facilitate hauling from one range to another.

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[2] The drawings of equipment shown in figures 2, 3, 4, and 5 were prepared by Mr. H. L. Belton of the Agricultural Engineering Division of the College of Agriculture; for this service the writer wishes to express his appreciation.

Proper Age to Start Feeding.—To start feeding at the proper age is one of the first essentials of success; the lambs should have access to a creep when they are about 2 weeks old. At that time they are just beginning to eat grass; and the grass being scarce, they will soon learn to like grain. By holding the ewes and lambs around the creep for an hour or more every evening these young lambs run in and out in play and become thoroughly familiar with this special enclosure. They first begin nibbling at the grain and soon they will all be eating at the trough. One grower recommends keeping the rail off the grain troughs the first week in order to give the lambs every freedom in eating. It has been found difficult to teach them to eat grain after they are 6 to 8 weeks old. Many of these older lambs will never come into the creep because they prefer green grass to grain; others will eat only a small amount; and in general the results will not be satisfactory.

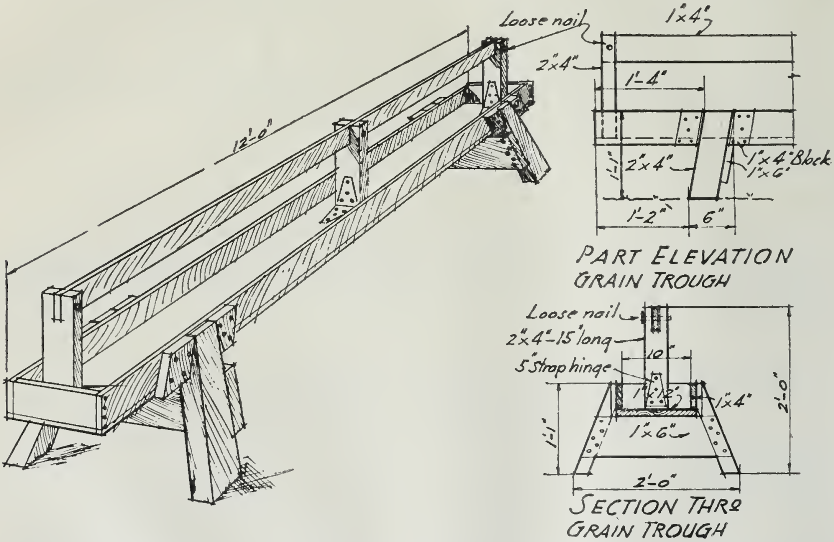

Fig. 4.—Knockdown (Paulo type) grain trough for lambs. This trough, being of light construction, can be readily taken down and loaded into a truck. The legs may be made of 2 × 3 or 2 × 4 inch lumber, and the boards should be surfaced on four sides.

Program of Feeding.—The troughs should be swept clean every day, for young lambs are finicky about filth and tainted feed. The herder usually attends to the feeding and puts the grain out sometime in the afternoon while the sheep are grazing, or perhaps at noon. Regularity of feeding is very important. Everything should be in readiness when the ewes and lambs arrive at the creep. Lambs well accustomed to the grain, will quickly leave their mothers and make a dash for the feed trough.

In the beginning they will eat very sparingly; the first week only a little grain is sprinkled on the bottom of the troughs. The second week perhaps $\frac{1}{10}$ pound per lamb daily is allowed; and this may be increased $\frac{1}{10}$ pound each week according to appetite and behavior. One-half pound per lamb daily is about full feed. As the lambs grow older, however, provided the natural feed is short, they may consume up to $\frac{3}{4}$ pound, the extreme practical limit. Judgment must be exercised; the best criterion is the way they clean up the feed. Any feed left in the troughs should be taken out and sacked to be fed to other stock later. In rainy weather the amount should be greatly reduced, for the lambs will not eat wet feed and will only waste it.

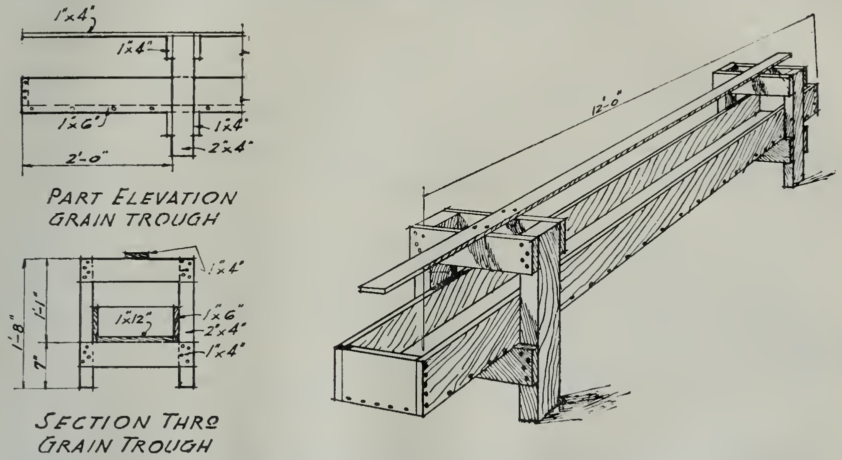

Fig. 5.—Stationary type of grain trough for lambs. It may also be used for older sheep. The 1 × 4 inch rail on top keeps the lambs from getting into the trough.

SUITABLE FEEDS

Young lambs, being rather particular, will not eat all types of grains readily. Whole milo has proved to be a favorite; as the kernel is small and smooth, the lambs prefer it to other grains. There are many varieties of milo, the red variety being popular with some operators. Sheepmen should purchase only milo that has been artificially dried by being passed through a grain dehydrator and then preferably sacked. Sun-dried milo may carry a high moisture content that would cause the grain to mold. Such feed is very harmful to lambs—an important point.

Rolled barley is also recommended although when fed alone it is somewhat heating; it is likely to produce indigestion when the lambs are fed too heavily. For this reason the owner should keep in close touch with the herder and see that the proper amount is fed daily. Other grains that may be used are cracked corn, whole oats, molasses dried beet pulp, and alfalfa molasses meal.

The particular grains or mixture of feeds used are less important than the question of getting all the lambs to enter the creep and eat freely. After they are accustomed to a certain grain or grain mixture, a change of ration should be avoided because the lambs may refuse a new feed.

A commmon grain mixture is 50 per cent whole milo grain, 25 per cent rolled barley, and 25 per cent cracked corn. Some growers have found it desirable to feed 15 to 20 per cent alfalfa molasses meal, using the standard meal and not the stem meal. Whole oats is an excellent feed but usually high in price. Molasses dried beet pulp is not particularly palatable to young lambs, and the writer has observed that young lambs leave the beet pulp until the last when a mixture of grains is fed including beet pulp.

Water.—Lambs fed on grain should have free access to water. It may be necessary to provide a small platform beside the trough so that they can obtain a drink at any time. Lambs lacking ample water and eating grain freely may suffer from indigestion.

Salt.—Most growers simply provide half-ground salt in troughs—with good results. If, however, the young lambs start eating dirt, it is well to add bone meal to the salt mixture at the rate of 25 pounds of bone meal to 75 pounds of salt. The dirt-eating habit is more common with undernourished lambs or with lambs that lack a variety of forage. It is seldom observed where lambs are fed grain.

CREEP-FEEDING OF TWINS

Only under very favorable feed conditions can one ewe raise twin lambs of good weight and finish. As a rule one of them will be undersized, or both will be light in weight. Here, again, creep-feeding fills a need, in that it provides a means of finishing twin lambs almost as well as single lambs.

One grower in the San Joaquin Valley, in coöperation with the Agricultural Extension Service of the University of California, kept an accurate record of three bands of ewes and lambs—two consisting of ewes with single lambs, and one of ewes with twin lambs, segregated during lambing time. The twins were creep-fed, and their mothers were fed some hay and grain. In the two bands of single lambs neither the lambs nor the ewes were fed. The single lambs in band no. 1 (91 per cent fat lambs, returned $5.96 per ewe. Band no. 2, later single lambs (55 per cent fat lambs), returned $5.30 per ewe. Band no. 3, all twins (91 per cent fat lambs), returned $9.91 per ewe, after a deduction of 66 cents for supplemental feed per lamb and ewe. The single lambs averaged 81 pounds apiece, whereas the twins weighed 77 pounds each.[3] In this instance the grower realized a good profit on his twin lambs by creep-feeding and furnishing some supplemental feed to the ewes.

One sheepman operating extensively in the Sacramento Valley, creep-fed about 4,400 lambs in 1939. He grazes his sheep on a rather inferior type of range covered mainly with filaree, foxtail grass, brome grass, and weeds—not, of course, rated as good feed for spring lambs. His ewes are mainly of the crossbred type, and he often begins feeding a small amount of shelled corn about a month before lambing time or sometimes sooner if the fall feed is short. He begins lambing about December 1 and gradually makes up bands of 700 ewes and their lambs. Instead of attempting to segregate the twins, he makes a practice of creep-feeding all the lambs. The creeps are set up, and feeding begins when the lambs are 2 to 3 weeks old. He observes every detail, such as proper location of creeps, sufficient room, cleanliness of troughs, regular hours of feeding, and rotation of range. This year he began selling lambs on March 23 at the age of about 3½ months. Table 1 gives the account sales and emphasizes the effect of creep-feeding on early finish and weight of lambs.

TABLE 1

One Grower's Sales Account of Creep-fed Lambs

Date sold	Number of lambs	Average weight per lamb in pounds	Total weight in pounds	Price per cwt., dollars	Total amount, dollars
Mar. 23	633	88.4	55,976	8.50	4,757.96
Mar. 31	719	85.7	61,615	8.50	5,237.27
Apr. 6	790	89.3	70,520	8.85	6.241.02
Apr. 7	1,302	87.7	114,130	8.85	10,100.50
Apr. 28	260	91.0	23.660	8.50	2,011.10
May 10	617	88.5	54,576	8.50	4,638.96
Total	4,321	....	380,477	....	32,986.81

On May 10 there were only 62 lambs left as feeders and culls of all lambs dropped prior to February 1. This is an exceptional record and shows the importance of creep-feeding particularly during seasons of low rainfall when the lambs respond so well to supplemental feed.

Calculations made from the table show an average weight of 88.04 pounds with a gross return of $7.63 per lamb. Allowing an average charge of 50 cents per lamb for feed and 10 cents per head for equipment and labor, this leaves a return of $7.03, which is very favorable considering the shortage of rainfall. Many growers of spring lambs who did not creep-feed did not realize over $5.00 to $5.50 per lamb during 1939.

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[3] L. L. Benion. Results of creep feeding twin lambs and comparison with single lambs not fed. California Agricultural Extension Service Leaflet. 4 p. 1938. (Mimeo.)

PROFITABLENESS OF CREEP-FEEDING

Since the young lambs consume only a limited amount of grain, the high percentage of fat lambs, the favorable weight, and the early finish more than pay for the feed consumed. The average feeding period is 90 to 100 days, and during this time the lamb consumes 40 to 50 pounds of grain at an average price of $1.00 per hundredweight—about 50 cents per lamb. By supplying this supplemental feed one can realize $1.50 to $2.00 per head more than with lambs not having access to a creep.

Creep-feeding, furthermore, is particularly adapted to second-rate or overstocked ranges. In such locations the lambs frequently get a setback resulting in a large percentage of feeder lambs. These second-rate ranges rent for about 75 cents per acre, whereas the rental on the better bur-clover ranges is $1.50 to $2.00. Assuming that the lambs would be of about equal weight on this basis of rental, the creep-feeding system is the more profitable of the two. And the fact that spring lambs can be profitably produced on second-rate areas greatly increases the value of such ranges.

It should again be emphasized that the practice of creep-feeding is by no means a short cut to success. It is only a means of supplementing native feed, thereby increasing the weight and quality of the lamb crop. By it one may produce a large percentage of fat lambs in the absence of favorable rainfall or in the absence of a first-class spring-lamb range. Successful lamb production depends on the kind and age of ewes; the condition of the ewes throughout the year, particularly at breeding and lambing time; the proper supply of range and supplemental feed for the ewe band; and in fact all the details of good management. Even though the lambs are creep-fed, they must also receive a good milk supply from their mothers.

A number of sheepmen in California have practiced creep-feeding extensively for many years. They have found it profitable and have been highly pleased with the quality and the weight of the lambs produced.

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